

REMARKS

In the Office Action, the Examiner provisionally rejected claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/066,456, claims 1-14 of copending Application No. 10/062,047, and claims 1-14 of copending Application No. 10/061,719. The Examiner also rejected claims 1-6 and 17-20 under 35 U.S.C. 102(e) as being anticipated by Cirit (U.S. Patent No. 6,523,156), hereinafter Cirit. The Examiner further rejected claims 1-20 under 35 U.S.C. 102(b) as being anticipated by Damiano et al. (U.S. Patent No. 5,537,330), hereinafter Damiano.

In this Amendment, Applicants have amended claims 1, 13, and 15-20 and have canceled claim 14. Accordingly, claims 1-13 and 15-20 will be pending after entry of this Amendment.

I. Provisional Rejections Based on Obviousness-Type Double Patenting

In the Office Action, the Examiner provisionally rejected claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/066,456, claims 1-14 of copending Application No. 10/062,047, and claims 1-14 of copending Application No. 10/061,719. Applicants are concurrently filing terminal disclaimers in compliance with 37 C.F.R. 1.321(c) to overcome the provisional rejections based on these copending applications. Accompanying the terminal disclaimer is a copy of a power of attorney document for the present application.

II. Rejections Under 35 U.S.C. 102

In the Office Action, the Examiner rejected claims 1-6 and 17-20 under 35 U.S.C. 102(e) as being anticipated by Cirit and rejected claims 1-20 under 35 U.S.C. 102(b) as being

anticipated by Damiano. The Applicants have amended claim 1 and, as the rejection might be applied to the amended claim, respectfully traverse. Claim 1 as amended recites a method for performing technology mapping on a design that is not bounded to a particular technology, the method comprising:

- mapping the design to the technology and optimizing the design for the technology by iteratively:
 - selecting from the design a candidate sub-network;
 - identifying at least one replacement sub-network from a storage structure that stores replacement sub-networks that are bound to the technology, wherein at least some of the replacement sub-networks comprises multiple circuit elements;
 - determining whether to replace the selected candidate sub-network with the replacement sub-network using at least one cost function;
 - if determined to replace the selected candidate sub-network, replacing the selected candidate sub-network in the design with the replacement sub-network; and
 - wherein, during an iteration, a first candidate sub-network is replaced in the design with a first replacement sub-network, and during another iteration, a second candidate sub-network is replaced by a second replacement sub-network, the second candidate sub-network being comprised of at least one but not all circuit elements of the first replacement sub-network.

Applicants respectfully submit that the cited references, alone or in combination, do not disclose, teach, or even suggest each limitation of claim 1. For instance, the cited references do not disclose, teach, or even suggest the separate operations of mapping the design to the technology and optimizing the design for the technology by iteratively: selecting a candidate sub-network, identifying at least one replacement sub-network, determining whether to replace the selected candidate sub-network using at least one cost function, and replacing the selected candidate sub-network (if determined to do so), wherein, during an iteration, a first candidate sub-network is replaced in the design with a first replacement sub-network, and during another iteration, a second candidate sub-network is

replaced by a second replacement sub-network, the second candidate sub-network being comprised of at least one but not all circuit elements of the first replacement sub-network.

Applicants respectfully request that the Examiner specify the portion(s) of Cirit or Damiano that disclose each of the separate limitations recited in claim 1. For the above reasons, Applicants submit that amended claim 1 is allowable over Cirit and Damiano. Claims 2-13 and 15-16 are dependent upon claim 1, and thus are also allowable for at least the same reasons as claim 1. The Applicants are canceling claim 14 making the rejection of claim 14 moot.

Claim 17 is a computer readable medium claim that has been amended to include limitations similar to amended claim 1. Accordingly, claim 17 is patentable over the cited art for the same reasons as stated above for claim 1. Claims 18-20 are dependent upon claim 17, and thus are also allowable for at least the same reasons as claim 17.

III. Information Disclosure Statement

Accompanying this Amendment are the 1449 forms of an Information Disclosure Statement and an Electronic Information Disclosure Statement that Applicants are submitting concurrently with but separately from this Amendment. This Information Disclosure Statement lists and provides copies of several additional references for the Examiner's consideration. The Examiner is requested to make these documents of record.

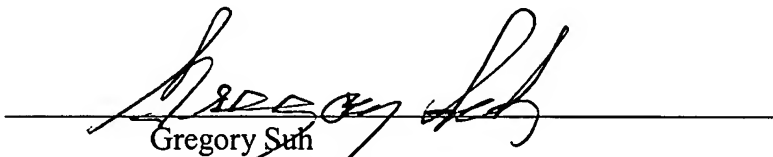
CONCLUSION

Based on the foregoing remarks, Applicants believe that the rejections in the Office Action of May 4, 2004 are fully overcome and that the application is in condition for allowance. If the Examiner has any questions regarding the case, the Examiner is invited to contact Applicants' undersigned representative at the number given below.

Respectfully submitted,

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